

Rethinking PGIS: Participatory or (Post)Political GIS?^{1 2}

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Abstract: Participatory GIS (PGIS) emerged from the contentious GIS debates of the 1990s as a means of political intervention in issues of social and environmental justice. PGIS has since matured into a distinct subfield in which GIS is used to enhance the political engagement of historically marginalized people and to shape political outcomes through mapping. However, this has proven to be difficult work. We suggest that this is because PGIS, particularly in its community development incarnations, though well-intentioned in endeavoring to enhance the voices of the excluded, is inherently limited because it primarily aims to enhance the inclusion and participation of the historically marginalized by working within established frameworks of institutionalized governance in particular places. This, we suggest, has left this mode of PGIS ill-equipped to truly challenge the political-economic structures responsible for (re)producing the very conditions of socio-economic inequality it strives to ameliorate. As a result, we argue that PGIS has become de-politicized, operating within, rather than disrupting, existing spheres of political-economic power. Moving forward, we suggest that PGIS is in need of being retheorized by engaging with the emergent post-politics literature and related areas of critical social and political theory. We argue that by adopting a more radical conception of democracy, justice, and “the political,” PGIS praxis can be recentered around disruption rather than participation and, ultimately, brought closer to its self-proclaimed goal of supporting progressive change for the historically marginalized.

Keywords: participatory research, post-politics, participatory GIS, stakeholder collaboration, governance, consensus

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I Introduction

The use of geographic information systems (GIS) in aiding local community revitalization efforts is increasingly common as GIS is thought to “present a new and unique opportunity for community change” (Schlossberg and Shuford, 2005: 15). A notable example is the “Roots & Routes Initiative” in Chicago, Illinois, a collaborative project led by the Field Museum, the Chicago Park District, and several community-based organizations (in conjunction with funding from the City of Chicago and corporate sponsors, such as Boeing). The initiative aims to restore and sustain a “lakefront natural area ... in order to maximize benefits for neighboring communities and nature” (Roots to Routes Initiative, 2017). Low income minority populations have historically been excluded from quality urban green spaces, a condition this initiative seeks to ameliorate by reaching out to residents in Chicago’s Bronzeville, a neighborhood that borders the lakefront area.

The initiative is promoted as a means of re-connecting low income, historically marginalized communities to an ecologically restored lakefront. In the process, local youths and community leaders have actively participated in the conservation process to ensure that their historical and cultural connections – “their language, art, and values” – to the lakefront are also restored. Part of this has entailed the use of GIS via youth internship programs to construct “asset maps” of the lakefront natural resources. The use of GIS in this way has been promoted as integral in enrolling local people and empowering these historically marginalized communities (Campbell, 2017).

There is much to be applauded in this and similar initiatives. And in terms of addressing the legacies of racial inequality and systemic exclusion, it can certainly be seen as progressive.

Yet, this effort overlooks the reality that Bronzeville is a gentrifying neighborhood based on reviving the long-lost cultural legacy of the neighborhood as a means of attracting black middle class consumers (Anderson and Sternberg, 2013; Sternberg and Anderson, 2014). As such, the support of the City of Chicago and corporate sponsors in this initiative should not necessarily be interpreted as a “victory” for the historically marginalized. Indeed, stated on the Initiative’s website is that not only are participants “helping to empower community groups,” but “they are becoming ... Champions of a process of neighborhood renewal.” (Chicago Green Ambassadors Program, 2017). Thus, to what extent are local participants working toward their own future displacement from the neighborhood?

This project is but one example of the myriad efforts to use GIS to provide “community consultation in governmental processes” for land-use planning, economic development, or ‘revitalization’ efforts (Brown 2012: 7). This type of endeavor, now common in geography and urban planning, is a practice-oriented form of community development that emphasizes a GIS-based means of participatory governance. Such efforts are also a growing part of the Participatory GIS (PGIS) literature, which refers to the practice of using GIS to enhance the civic engagement and participation among population groups that have historically been marginalized within formal governing arenas.³ PGIS is considered a means of both politically-minded scholarship and praxis informed by critical mapping (Henry-Nickie et al., 2008; Elwood, 2010a; Brown and Kyttä, 2014) while also encompassing research into the dynamics of participatory governance, such as who does and/or should participate and how such participation occurs (e.g., Schlossberg and Shuford, 2005).

However, much of this research is often overly-focused on the technology and practical implementations of GIS which, we argue, comes at the expense of a more nuanced and theoretically developed conception of politics and justice. It is in this context that we aspire to an intervention: – existing scholarship in PGIS tends to conceptualize politics in limited ways, and this has constrained our understanding of the nature and possibilities for transformative counter-hegemonic politics through PGIS practice. We draw on the growing “post-politics” literature to both illustrate the limits to this model of PGIS and chart future directions which, we believe, can redirect PGIS toward a more nuanced conception of participation, democracy, and explicitly counter-hegemonic politics.

II PGIS

At its core, PGIS aims to increase the ability of historically marginalized groups to effect change within processes of governmental decision making, particularly at local scales (Ghose, 2017), and to make political outcomes more “socially valid” (Cope, 2012: 3) by using GIS to draw in diverse sets of stakeholders into decision-making processes. This is normally done by creating new cartographic representations to counter dominant viewpoints about land use and access; this connects PGIS to larger bodies of knowledge including critical mapping, participatory methods, urban planning, community development, resource management, and natural hazards (Brown, 2012). This emphasis on political engagement has also necessarily required PGIS practitioners to navigate issues connected to effective local governance, such as uneven power relations between citizens, elected officials, planning professionals, GIS practitioners, and a variety of other agents. Collaboration and consensus are therefore key

themes in the PGIS literature, guided by the notion that legitimate political outcomes are those made with input from the full range of possible stakeholders (e.g., Trachtenberg and Focht, 2005).

The first formulations of PGIS emerged nearly 20 years ago within geography and has since moved from a fringe concern toward the center of how many human geographers engage with GIS (Schuurman 2000; Sui and DeLyser 2012). PGIS, itself the result of a political struggle over the role of GIS within geography, also remains a hybrid formation between critical cartography, qualitative methods, citizen science, and GIS analysis that is fraught with the tensions of being situated between very different research traditions, philosophies, and sub-disciplinary norms (Elwood 2006; Preston and Wilson, 2014). PGIS initiatives have also been implemented across myriad socio-spatial contexts spanning the globe (see Ghose, 2017 for a review). This heterogeneity renders any sweeping critique problematic, as PGIS in no way reflects a singular, coherent field.

These tensions continue to receive periodic attention by PGIS scholars and practitioners. For example, a recent special issue of *The Cartographic Journal* was dedicated to reflecting on the realities of using GIS to shape political outcomes on behalf of the marginalized (Kent 2016). These authors and others advanced several interrelated questions about PGIS, driven in part by the various challenges associated with this endeavor. There are ongoing definitional questions about the myriad versions and interpretations of PGIS (public participation, collaborative GIS, community-based GIS, volunteered geographic information, web mapping, mental mapping, etc.) that are partially interconnected (see Pánek, 2016; Verplanke et al. 2016). Another consistent theme emphasizes the barriers involved in enabling the public use of GIS technology

(e.g., Ghose and Appel, 2016; Haklay, 2013;). There have also been concerns about the rapid adoption of PGIS in conjunction with a relative lack of attention to best practices (e.g., Radil and Jiao, 2016; Thompson, 2016).

These examples reflect a growing disquiet with the relative efficacy of PGIS and a questioning of its potential for truly transformative political outcomes. As explained by Corbett, Cochrane, and Gill (2016: 336), PGIS revolves around the “belief of its ability to disrupt power inequalities.” And yet, as they point out, the idea of political change through ‘empowerment’ has received little scrutiny and is a largely taken for granted notion in PGIS: “few studies define what empowerment is and how it is measured, and only a small minority are critically engaging with the term” (Corbett et al., 2016: 338). Perhaps the lack of attention to such a fundamental concept is not too surprising given the “eclectic integration of theories” (Balram and Dragicevic, 2006: 3) and rapidly changing ‘ecosystems’ of technologies and actors that surround GIS (Kar et al., 2016: 290). Despite this dynamic technological context, Corbett and colleagues make an important contribution by drawing explicit attention to the under-examined theoretical foundations of PGIS.

We agree with the need to better examine the theoretical underpinnings of PGIS and suggest that any understanding of empowerment first requires a clear-eyed look at the basic assumptions about politics that are embedded in PGIS. This is particularly true for what we call “community development” PGIS, an ever-more prevalent version centered on issues of economic development, revitalization, or restructuring which tends to occur in conjunction with the governance practices and rituals of land-use planning (Rambaldi et al., 2006; Sieber, 2006; Brown and Kyttä, 2014). While we envision this essay being of value for PGIS in general, it is in

the context of this particular form of PGIS that our critique is most directly pointed. We argue that such efforts are limited by a conception of politics that pays little attention to a core contradiction at the heart of such endeavors: challenging power on the one hand and participating in formal governing processes built by and for the powerful on the other. Even as PGIS aims to disrupt the status-quo by enrolling new voices into existing political-economic power relations (those involved in (re)shaping conditions of social, political, and economic inequality), there is often a failure to recognize the ways in which such power relations might strike at the core of how capitalist political-economic systems function.

Indeed, this issue has been taken up by others in the wider critical GIS literature (e.g., see Weiner and Harris, 2003; Wilson and Poore, 2009; Gilbert and Masucci, 2006; Elwood, 2010b), yet the insights from these efforts (and critical social and political theory more broadly) remain somewhat disconnected from PGIS, especially in its community development incarnations. In this essay, we move for PGIS to be politically re-oriented more toward *disrupting* (rather than participating within) existing governing arenas, and that fruitful insights can be gained from a more in-depth engagement with the literature on “post politics”. Such a re-orientation offers potential for rethinking what GIS-based political interventions might strive for and how they might operate. Conversely, the post-politics literature has only minimally engaged with the (post)political potential of GIS. It is in these contexts that we seek to bring these relatively disparate bodies of literature into closer dialogue by connecting this mode of PGIS to wider areas of political theory.

In building our argument, the next section considers how politics has been conceived in PGIS by emphasizing the (dis)connections between PGIS, critical cartography and critical GIS,

and participatory governance. We then consider the limitations of participatory governance: following Brown (2012), PGIS tends to emphasize the barriers and limitations presented by the GIS technology itself, and is consequently less engaged in the broader, multi-disciplinary literature on participatory governance in general. The following two sections then discuss alternative understandings of politics derived from the post-politics literature. We close with a discussion that contrasts two examples of politically-minded PGIS projects and use these to suggest pathways for scholars and practitioners interested in developing a more reinvigorated and counter-hegemonic PGIS.

III PGIS, Power, and Participation

At its most basic, politics involves the notion of power regarding reconciling peoples' competing wants and interests (Painter and Jeffery, 2009: 12). From this perspective, PGIS would seem to be an inherently political endeavor and yet, much of the literature only discusses power indirectly and through the lens of GIS technology (McCall, 2006; Aditya, 2010). This is partially the case because PGIS evolved from both the critical cartography and critical GIS literatures, both of which center the notion of power as a crucial perspective on understanding the dynamics and implications of using GIS for mapping. In these literatures, mapping and GIS technology are power-laden forms of knowledge production that helps to (re)create as much of the world as they purportedly represent (Crampton and Krygier, 2006).

The extensive critical cartography literature rests on assumptions that "maps are neither neutral nor unproblematic with respect to representation, positionality, and partiality of knowledge" (Harris and Hazen, 2006: 101). The intellectual lineage behind the power of maps is

well documented and cannot be fully recounted here (see Crampton and Krygier, 2006; Crampton and Wilson, 2015). In short, the following two points have been central to the conception of politics that PGIS has inherited from this literature: first, maps have often historically served the interests of the powerful, especially those aligned with the state, and second, as a consequence of their ability to shape understandings, maps can also challenge power rather than serve it (Harris and Hazen, 2006). That this power-laden understanding of maps and the spirit associated with the political possibility of “counter-mapping” (Wainwright and Bryan, 2009) is embedded in PGIS is unsurprising given the close connections between GIS and mapmaking (e.g., Sui, 2004). Indeed, a core thrust of PGIS is to put the power of maps into new hands, and particularly through the idea of “local groups’ appropriation of the technology of mapping ... to counterbalance or at least offset the previous monopoly of authoritative resources by the state or capital” (Peluso, 1995: 385-6).

During the 1990s these concerns were also central to the development of the critical GIS literature which interrogates the social roots, histories, and implications of GIS technology, the issues connected to non-human agency in technological systems, the politics of the GIScience label, and the “asymmetries” involved in using GIS for social research (Sheppard, 2005 :14; see also Pickles, 1995; Elwood, 2010a). Stemming from this literature is an understanding of how politics and power are embedded in GIS technology. For example, using GIS for counter mapping imposes a Cartesian conception of space which can be quite at odds with the ways in which non-western populations have historically conceived of relations between space, property, resources, and ownership; this can defuse the empowering potential of GIS in such contexts (Wainwright and Bryan, 2009). A key insight from critical GIS is that each of the various

steps of a PGIS project (defining goals, deciding what data to collect, and how such data should be visualized, etc.) introduce potential points of negotiation, contestation, and perhaps even exclusion among participants (Craig et al., 2003 2010b). Another is that all of these issues are themselves deeply contingent on the socio-spatial contexts in which PGIS efforts are situated (Ghose, 2017).

In these ways, PGIS stems from disciplinary traditions rooted in critical social theory; its primary agenda is to put these ideas into practice as a means of enacting social change (Ramsey, 2016). However, following Brown (2012), the PGIS literature can also overemphasize the role of GIS technology in facilitating participation at the expense of a broader engagement with participatory governing processes. We fundamentally agree with Ramsey (2016) that this has become an undue limitation in many PGIS efforts, where the role of technology is privileged as the presumed difference-maker within an implicit and narrow conception of politics that is inherently incorporative: in other words, to be political is to participate. Further, we suggest this limitation is most clearly expressed in PGIS endeavors that intersect with issues of economic restructuring, or in our parlance, community development PGIS.

PGIS also draws from, in part, the interdisciplinary literature on participatory governance which commonly emphasizes direct citizen engagement with democratic governing processes (Ansell and Gash, 2008). Traditional “top-down” government, here, is critiqued as subject to capture by special interests and elite actors, which has yielded a so-called ‘democratic deficit’ that manifests as increasing political detachment and distrust of public institutions (e.g., Norris, 2011). As a response, the core premise of participatory governance is that better participation with respect to decision-making across the full spectrum of citizen

stakeholders will yield outcomes that are “likely to be more legitimate” (Warren, 2007: 272). Despite being situated in other critical traditions, these values about participation are often uncritically accepted in PGIS efforts that seek to enhance the civic engagement of historically underrepresented communities.

This embrace of participation as central to legitimate political outcomes in PGIS tends to play out by explorations of the challenges of using GIS to draw people into governance processes. As Ghose (2017, 3) notes, PGIS “stresses the importance of enhancing access to existing spatial data/GIS and to participation opportunities in policymaking processes.” Much of the literature reflects this concern, emphasizing how the technology can be used, adapted, or fielded in different settings or what technical steps are needed (data access, training, etc.) to make such efforts viable (e.g., Barndt, 1998; Talen, 2000; Kyem, 2004; Brown, 2012). For example, Cinderby (2010) reported on three community development PGIS efforts that used a mode of “on-street mapping” to foster greater participation among “hard-to-reach” groups (i.e., youth, elderly, disabled, ethnic minorities, and the deprived). Cinderby (2010: 250) asserted that the ‘on-street mapping’ showed “potential to ensure greater effective and inclusive engagement with local communities over development and regeneration issues.”

In Cinderby’s discussion of the pros and cons of the techniques of on-street mapping in delivering participation, the challenges of using GIS technology was front and center. And yet, the act of participation itself was never in question even though it represented both the end goal and measure of success. While all PGIS initiatives are designed to include greater diversity of voices in the decision-making process, there remains too little focus on the degree to which people’s participation actually shapes outcomes beyond having their input coded onto a map.

After all, the participants in Cinderby's cases were, ostensibly, still under the domain of a governance system led exclusively by public officials. Lastly, the proposed redevelopment schemes themselves were not in question, with the solicited participation meant to guide the nature of the seemingly inevitable redevelopment. This is merely one of many similar studies that examine the relative efficacy of how, when, and where to insert GIS into participatory planning efforts (see Brown, 2012 for a substantive review).

1 The Limitations of Participatory Governance

Beyond issues of technology, PGIS is also concerned with the social and political dimensions of participation within existing systems of governance. The challenges of navigating participation across identity categories, such as class, race, or gender has been identified as potentially problematic in PGIS (see Parker, 2006), as participants with more technical knowledge can dominate in formalized decision-making settings, allowing already engaged citizens to reinforce their own influence (Pfeffer et al. 2013). Of equal concern are the political cultures and systems that PGIS must contend with. For instance, Brown (2012) reported that officials can limit public participation when the preferred outcome is in doubt, while Radil and Liao (2016) showed that even meeting locations that are laden with class or racial meaning can serve to exclude rather than encourage participation among certain stakeholders. Both examples are also in concert with Ghose's (2017: 4) warning that "politically repressive culture[s] can ... render PPGIS efforts ineffective and irrelevant."

These examples point out that many PGIS initiatives take place within well-established local decision-making frameworks where political processes are highly formalized and what counts as "knowledge" about the place tends to be already established. Consequently,

participation means enrolling new stakeholders to work within existing “legitimate” decision-making bodies, like zoning boards or planning commissions, where power imbalances are already normalized (e.g., Dunn, 2007). Indeed, most community development PGIS activities are undertaken “in a framework of accommodation and collaboration, which may not lead to any alterations in power” (Ghose, 2017: 9). It is in this context that Brown (2012: 16) acknowledges that GIS itself “will not fix fundamentally flawed participatory processes that are superficial, obligatory, or token.” These issues have received periodic attention in PGIS (see Elwood, 2006; McCall and Dunn, 2012) but have been more widely explored in other corners of geography (and beyond).

Backed by the United Nations, what is often labelled participatory governance has been heavily promoted over the past three decades as a means of reducing the top-down influence of the state by extending decision-making authority to non-state “stakeholders” in more locally-embedded planning contexts, the very venue within which much PGIS is situated. Championed by public and private sectors alike, participatory governing frameworks have also been routinely characterized as emblematic of the broader shift to neoliberalism, citing its consistency with the principle of devolving governing responsibilities to non-state actors (Swyngedouw, 2005; Purcell, 2008). A PGIS that unequivocally promotes participation as both a means of political strategy and the basis of measuring success can also be interpreted as reinforcing (wittingly or not) neoliberal hegemony.

A massive multi-disciplinary literature now documents the myriad limitations of participatory governance across disparate socio-spatial contexts and cannot be thoroughly reviewed here. However, key themes include the persistence of state agendas and unequal

power relations (Bakker, 2007; Anjaria, 2009; Blakeley, 2010), the foreclosure on anything oppositional to neoliberal rationalities of development (MacLeod, 2013), funding and time-related constraints (Lurie and Hibbard, 2008), and the difficulties of productively dealing with conflict (Anderson et al., 2016a). Moreover, consensus, one of the primary goals of this mode of governance, has been less about stakeholders productively working together to generate enhanced solutions to pressing problems than effectively establishing what Mouffe (1999) has called a form of “provisional hegemony,” the result of some actors overpowering or silencing others by suppressing substantive debate.⁴

In short, participatory governance has yet to yield much in the way of substantively empowering local actors (whether incorporating GIS or not). Rather, state and elite actors have typically retained the power and authority to govern (see Ward et al., 2017) through institutional structures that merely appear more inclusive and democratic. In the process, participants are often relegated to stamp-holders for an array of class-prioritizing policies imposed by privileged actors within a governing arena where the stakeholders (i.e. those with recognized and legitimate speech) are invited and “disruption or dissent is reduced to debates over the institutional modalities of governing ... under the aegis of a non-disputed liberal-capitalist order” (Swyngedouw, 2009: 602, 612).

PGIS tends to be disconnected from this wider critique of participatory governance, in part because of the emphasis on the challenges surrounding GIS technology itself (Brown, 2012). Following Ghose (2017), formal participatory governing venues are a problematic starting point for using GIS to enact social-justice oriented political transformations. The use of GIS in such governing arrangements has done little to address these persistent systemic issues

(and can even make things worse), as such arrangements have tended to function more as venues for enacting mechanisms of neoliberal governmentality (as a means of gaining consent and legitimacy for elite policies) than genuinely enhancing the political power of the historically marginalized. It is in this context that some scholars have identified participatory governance (and therefore, perhaps by extension, community development PGIS) as emblematic of an emergent “post-political” condition.

IV The (Post)Political Condition

Over the past ten years there has been growing interest, in human geography and beyond, in critically rethinking the meaning of democracy and “the political” (Swyngedouw, 2009; Purcell, 2013, 2014; Wilson and Swyngedouw, 2014a). To many commentators, the contemporary political landscape (particularly in the global north) is characterized as increasingly plagued by a condition referred to as “post-political.” Despite varying interpretations, there is now a general understanding of this condition as marked by the foreclosure of substantive disagreement, or “dissent,” from established governing arenas (across socio-spatial contexts), especially forms of dissent that challenge existing systems of hegemony (i.e., neoliberal capitalism). To Swyngedouw (2009), debate is acceptable within such post-political governing arrangements insofar as it never questions the tenets of the existing system, and is advanced by those already recognized as “legitimate” to participate (i.e., state actors, business elites).

In this perspective, a different and more radical conceptualization of politics is advanced, as that which effectively disrupts existing hegemonic conditions (from local cultural

norms to broader-scale political-economic power grids), as opposed to the mere presence of conflict or debate. The result, following Rancière (1999), is the substantive (and necessary) transformation of the system itself, the outcome of those previously excluded (i.e., lower-income minority groups) claiming their rightful and legitimate voice in governing matters (Swyngedouw, 2014). The objective of this disruptive opposition, however, must extend *beyond* mere inclusion within what Rancière (1999) refers to as the “existing order of things.” Limited to this, to Swyngedouw (2014), is to be rendered impotent, because to explicitly address the structural forces driving socio-economic inequality means to address the very conditions that are normalized as beyond debate. In short, enacting this opposition from beyond established governing arenas is a necessary means of preventing an otherwise certain outcome: being ignored or pacified to preserve the status-quo.

The institutional contours of this post-political condition have been examined in myriad contexts (see Williams and Booth, 2013; Kenis and Mathis, 2014; Darling, 2014; O’Callaghan et al., 2014; Beveridge et al., 2014; Anderson et al., 2016b), including the post-1990 proliferation of consensual modes of participatory governance (Purcell, 2008; MacLeod, 2013). Although this literature is now expansive and diverse, an important theme explores the varying conceptualizations of politics offered by prominent political theorists, such as Jacques Rancière (1999; 2010), Chantal Mouffe (1999; 2005), and Slavoj Žižek (1999).⁵ However, and perhaps appropriately so, there is disagreement among these scholars over the meaning of democracy and what precisely constitutes the desired political outcome (see Purcell, 2013, 2014; Wilson and Swyngedouw, 2014a).

For Mouffe (1999; 2005), all politics is necessarily a struggle for hegemonic power, entailing the pursuit of domination by one group(s) (i.e., neoliberal elites) over others. As such, it is always in the interest of the dominant group(s) to represent their particular interests as representative of the whole, leading Mouffe (1999) to assert that all consensus claims are also hegemonic articulations that invariably imply some form of exclusion. And it is precisely when established governing channels are closed off that excluded group(s) necessarily make their voice heard through more disruptive avenues. Mouffe's (2005) political project embraces a conception of inclusive democracy that she characterizes as "agonistic pluralism," where (state) power is seized by civil society and where everyone has the power to participate.

Disagreement, in this context, is recognized as a fundamental reality of the human condition. As such, political foes should treat each other with mutual respect and differences should be embraced toward progressive ends rather than repressed in the name of consensus.

For Rancière (1999; 2010), the difference is mainly of terminology (see Wilson and Swyngedouw, 2014b), except that democracy is conceptualized as the actual act of disruption itself, which is inherently ephemeral and limited, as the outcome can only ever be the erection of a new hegemonic order, marked by new forms of exclusion (and, thus, leading to future bouts of struggle). Through such acts of disruption, the existing hegemonic, or "police" order, is either strengthened, adjusted, or transformed into another hegemonic order, with the disruptive agents typically co-opted and/or incorporated into the resulting order. As such, every hegemonic order represents an institutionalized naturalization of some form of inequality (Rancière, 1999). But not all hegemonic orders are necessarily the same; for Rancière, societies that have experienced more frequent disruptive bouts are typically more complex, evolved, and

progressive. Indeed, what might seem like political instability, at least in the heat of disruptive moments, is precisely what holds the possibility for political maturity down the road. However, what Mouffe envisions as agonistic pluralism is not considered possible by Ranciere.

For Zizek (1999:237), changing “the parameters of what is considered possible in the existing constellation” is precisely the objective at-hand. The primary distinction, here, is that it is not the disruption of any unquestioned feature of society that matters, but that which strikes at the core of the existing political-economic order in particular: neoliberal capitalism. Class-based exploitation represents the common denominator linking the socially marginalized across otherwise disparate socio-spatial contexts and, thus, should form the basis of any counter-hegemonic politics. For Zizek, class consciousness is the ultimate rupture within capitalist society, this being the rupture that’s ultimately “sutured” by contemporary post-political practices. Indeed, even the nurturing of conflicts related to anything other than class can be deployed in the service of obliterating class-based conflict from the realm of possibility. Thus, for Zizek (1999:432), the “properly political” represents an “Act” that makes the impossible possible, and it must do so by re-politicizing “the economy,” the rationality of the “free-market,” and capitalism in particular.

These conceptualizations represent slightly different intellectual and political projects (Wilson and Swyngedouw, 2014b). Yet, there is a general acceptance that rather than merely participating within established governing venues, real transformative politics is that which is necessarily enacted by a coalition of “oppositional” actors mobilized beyond the corners of institutional power and with the goal of disrupting and consequently transforming the very socio-material foundation upon which those governing venues exist. Concrete examples are

frequently cited in the context of the recent wave of global resistance movements, from the food riots in the Global South, the Global Occupy movements, the Indignados in Spain, the anti-austerity protests in Syntagma Square in Athens, the ‘Day of Rage’ protests in Iran, to the sundry Arab Spring revolts in Egypt, Libya, Tunisia, and Syria (Harvey, 2012; Dean, 2014; Kaika and Karaliotas, 2014; Merrifield, 2013; Purcell, 2013).

These movements are more reflective of the kind of disruptive politics outlined above, and much of it has unfolded in the name of “democracy” (Purcell, 2008) and/or an anti-capitalist politics (Dean, 2014). There are, of course, exclusions and inequalities reported within these resistance movements as well (and following Rancière, this can never be avoided), with some not necessarily representing progressive political platforms, i.e., economic nationalism or religious fundamentalism (see Kaika and Karaliotas, 2014). But the key point is that they have demonstrated the capacity for transformative change, with the important questions concerning how their transformative impacts (when progressively mobilized) can best be sustained (Merrifield, 2013; Wilson and Swyngedouw, 2014a).

It is important to stress that we are not advocating for a “true” mode of politics which PGIS should adopt, as this would violate the very spirit of this critique. The conception of politics underpinning PGIS perhaps comes closest to Mouffe’s notion of agnostic pluralism, but for Mouffe, being included and allowed to participate is not enough: it must be situated within a wider movement that identifies radical democracy as a broader hegemonic agenda if the socio-economic inequalities associated with the existing liberal capitalist order are to be progressively altered. Ranciere rejects the very possibility of this, while for Zizek, nothing short of a broad anti-capitalist, class-based politics can get the job done.

V The Political/Post-Political Distinction

There is also a growing sentiment among some critical commentators that the dichotomy between the “political” and the “post-political” is limited in terms of identifying the myriad conditions of possibility for substantive political transformation that might exist within the status-quo (McCarthy, 2013; Lerner, 2014). For instance, Derickson and MacKinnon (2015) promote a “politics of resourcefulness” as a mode of scholar-activism that engages with marginalized activist groups in mutually-supportive ways. Here, the scholar must simultaneously adopt the role of activist as they not only research the marginalized, but also become an acting member within the very groups they study. In terms of PGIS, the message is that researchers must move further beyond the role of GIS facilitator, whereby other various academic resources beyond technology should be made more available to the disempowered.

Rosol (2014) similarly highlights the potential for productive outcomes through a form of “counter-conduct” consisting of collaborative relationships between “official” stakeholders and otherwise “illegitimate” activist groups. Here, gaining a seat at the negotiating table is one thing, but greater leverage can be generated when sufficient protesting (and resultant media attention) is applied from outside the venues where such negotiations formally unfold. Such endeavors can also benefit from enacting a “politics of scale” (Zupan, 2011), by forging trans-local connections with other resistance groups, either more politically powerful, larger scale organizations, and/or actors working outside the sanctioned governing arena.

Other more “stealth-like” strategies have also been identified as potentially fruitful, and from within the deliberative processes that mark participatory governing arrangements. For

example, Anderson et al. (2016b) chronicle how an alternative commons-based water management system was advanced through libertarian discourse as a means of gaining support in Montana, USA, a political climate otherwise hostile to such planning paradigms. Here, a kind of “reverse-co-optation” of neoliberal rationality could be mobilized toward radical and transgressive ends, thereby making such ends difficult to resist.

With the exception of Ramsey (2008), both PGIS and post-politics literatures remain thoroughly disconnected. Ramsey (2008) chronicles the case of a PGIS instituted in a water planning initiative in rural Idaho where state officials unilaterally controlled the development of a PGIS database before stakeholders were even introduced into the planning process, thereby significantly shaping the kind of deliberation that could occur and, thus, circumscribing the scope of potential outcomes. This was a source of contention for some participants who argued the resulting product favored the perspectives and interests of more economically powerful and privileged stakeholders over others, yet little was done in response. Although the author promotes a more open deliberative process informed by Mouffe, where all participants are included in the development of the GIS itself, inclusion implicitly remains the ultimate political goal.

Ramsey’s (2008) case also highlights that the forces generative of persistent socio-economic inequality often unfold beyond the corners of official governing venues. Decisions are often made in advance of any deliberative process with stakeholders, with the desired outcome willed through the veneer of a democratic process. Sauders (2013) provides another example when the San Francisco Police Department targeted a city park and surrounding blocks as a “crime hot spot” in need of greater police presence. This was issued without any discussion

with local residents or users, many of whom were homeless. Yet, GIS analysis of crime data revealed no such crime hot spot in this designated area, which had also been targeted as a site for redevelopment and was the likely motivating force behind the police presence. Saunders promotes what he termed “fast-action GIS response teams” to provide public users with reliable, up-to-date GIS data and analyses as a means of combating the dishonesty and ulterior motives that often fuel elite capitalist interests.

This, in fact, parallels developments in emergency- or disaster-response GIS which have emerged both within and beyond the academy, and in isolation of PGIS. For example, the emergence of informal information-sharing and mapping networks to help direct the efforts of first responders have been noted following Hurricane Sandy in 2012; Shanley et al. (2013) call this phenomena ‘crisis mapping’ and it has clear ties to PGIS through the use of volunteered geographic information shared through social media networks (e.g., Goodchild and Glennon, 2010). However, a natural disaster is a temporary phenomenon and the collaborative efforts behind it are likely to fade once the sense of ‘crisis’ has passed. A more durable form of engagement may be found in the example of the GISCorps, which provides volunteer GIS support for underdeveloped countries and to support disaster recovery efforts (GISCorps, 2016). Although understudied as a mode of political engagement, we suggest the “fast-action” approach may offer a new direction for a PGIS in that it relies less on the disempowered to effect change with scholars in the background as technical advisors.

In short, whether informed by Mouffe, Rancière, Zizek, and/or others, we suggest that PGIS could benefit from a more substantive engagement with the post-politics literature. We suggest the studies and examples discussed and cited above, while not necessarily entailing GIS

components, could offer ample inspiration in yielding a more politically developed PGIS, one better capable of not only exposing but, at the very least, contributing to *disrupting* the myriad hegemonic conditions (political-economic or otherwise) that (re)produce persistent relations of inequality. And conversely, it follows that critical mapping procedures also hold potential for enhancing the disruptive impact of social groups and movements already geared toward counter-hegemonic politics, a potential similarly ignored in the post-politics literature.

We do not mean to say that PGIS has not produced valuable work even if it has not changed power structures. Working with community groups to create capacity and be included in established governing systems are worthwhile endeavors, and using GIS to expose injustices and denials of equality can certainly be a vehicle for disruption (and not every group wants to be disruptive anyway). Indeed, PGIS scholars have made important steps toward broader systemic change. Yet, such efforts can become easily constrained (regardless of how well-intentioned) within sanctioned governing systems designed by and for the very elite-capitalist interests that necessitate the reproduction of existing relations of inequality. As such, following Elwood (2010b: 52), these steps, thus far, “do not in and of themselves rewrite [the] social, political, and economic inequalities” that continue to mark marginalized communities. It is toward this end that this essay hopes to initiate more substantive connections between PGIS (particularly in its community development form) and wider areas of political theory.⁶

VI Toward a More Counter-Hegemonic PGIS

Our concerns about PGIS are perhaps most salient within places that have had widespread negative impacts from neoliberal economic restructurings. In the U.S., such shifts

have been blamed for a declining middle class, increasing income inequality, and rising economic nationalism (Longworth, 2008; Tollefson, 2016). In such contexts, the need to ‘rewrite’ a place is often understood as essential and existential. One such effort has been underway for years in Muncie, Indiana. Muncie has lost thousands of high-wage manufacturing jobs since the 1990s, yielding a declining population, tax-base, and standard of living, public school closures and other forms of public disinvestment, and a sense among some residents of living in a state of persistent siege (Radil and Jiao, 2016).⁷ As a response, political and economic leaders within Muncie launched an effort to provide a new economic vision for the city which they called the Muncie Action Plan (MAP).

The MAP was a participatory planning effort to solicit citizen input about the state of the city in order to prioritize MAP-driven initiatives to improve the quality of life in the city (Muncie Action Plan, 2010). Tellingly, it was also a top-down endeavor; the MAP was funded by local governmental agencies and businesses and all decisions were made by the MAP board of directors, itself composed of leaders of these important local institutions. Rather than responding to bottom-up demands from already existing grassroots organizations, the MAP first focused on collecting input through open forums, then by trying to form and organize neighborhood ‘councils’ to directly carry out MAP’s activities across the city. PGIS was a major component of both stages and mapping was a primary means of collecting impressions and presenting feedback (Jiao et al., 2015). While some of the issues raised by residents were periodically addressed by MAP-led efforts, the act of participation was also highly circumscribed within the rituals of formal governance: presentations to boards of official decision-makers that either accept or reject the suggestions by neighborhood councils. This has led to narrowly

focused outcomes. For example, a resident of a declining and poor neighborhood stated that several months of map-based petitions had resulted in the city agreeing to repair potholes on a street in their neighborhood (Radil and Jiao, 2016). While an example of an improvement in the material conditions of daily life, such depoliticized efforts have no potential to ‘rewrite’ the conditions that led to such material disinvestment to begin with.

It is in such contexts that we suggest formal governing arenas, those organized by state and/or elite “stakeholders,” are inherently ill suited for PGIS efforts to truly make substantive, counter-hegemonic impacts to existing conditions of inequality. Research into the liberating potential (and limitations) of GIS and counter-mapping is now well established, yet much of its potential, we suggest, lies beyond the confines of what GIS technology itself can (and cannot) accomplish and more in the realm of counter-hegemonic strategies. Myriad examples of such social movements can be found in critical geography in general (Leitner et al., 2007; Kunkel and Mayer, 2012; Harvey, 2012) and the post-politics literature in particular (Wilson and Swyngedouw, 2014a), few of which explicitly feature counter-mapping components (beyond some areas of critical cartography). It should be stressed, however, that there is no singular model for how to be “properly” political in the use of GIS. And no matter how counter-hegemonic or subversive a social movement might be, the potential for post-political exclusion always lurks (Purcell, 2013).

What might a more counter-hegemonic PGIS look like? This remains the challenge for any serious critique, to define possible alternative formulations and identify what might be necessary to reach the desired outcomes. To this end, we draw inspiration from the Hyderabad Urban Lab (HUL), situated in Hyderabad, India. The HUL, which is part of the Right to the City

Foundation, is “a public charitable trust” whose aim is “to conduct research on urban issues in a way that would bridge the gap between academic urban research and life at ground zero” (HUL, 2017). It also functions as a school where “diverse groups of learners are taught how to think about cities,” and ultimately, “where ideas are taken to be tested in the real world.”

In contrast to top-down initiatives like the MAP, the HUL is a research center led by the kind of scholar-activism described by Derickson and MacKinnon (2015) and designed to translate academic knowledge (including GIS technology) to non-profit civil society actors and the public. It is driven primarily by organizers with academic training (e.g., see Sheppard et al., 2013; Maringanti, 2013; Maringanti and Mukhopadhyay, 2015), and data access and visualization are prioritized as crucial aspects of effecting change. For instance, mobility and public transit access has been a featured topic, with maps produced that identify “transit deserts” in the Hyderabad region that are correlated with heightened occurrences of sex crimes against women. In 2014, HUL provided recommendations to a local governmental committee on how to address this issue, suggesting not only enhanced public transit access but also various data management initiatives and social interventions that involve local institutions (i.e., schools, hospitals). Ultimately, HUL participated in developing the public transit routes that were subsequently implemented based on these recommendations (and perhaps an embryonic manifestation of the kind of bottom-up seizure of the state by civil society as promoted by Mouffe).

HUL has been involved in myriad other critical mapping projects as well, from issues of urban waste management to housing, water contamination, and flooding (see HUL, 2017). However, we stress greater importance on the wider “participatory” activities of HUL, beyond

the role of the maps themselves. “Story-telling” is also an important thrust of HULs praxis, embedding critical mapping procedures within broader counter-narratives tuned to social justice. Use of social media (i.e., Facebook, Twitter, Youtube) offers a particularly potent venue for projecting the maps and stories that communicate such alternative realities and politics, of which HUL consistently utilizes (and which has already been demonstrated in the context of Global Occupy, the Arab Spring, Black Lives Matter, etc., see Merrifield, 2013). HULs director, Anant Maringanti, has also discussed HULs role in the public transit initiative noted above (among other issues) on a Chicago radio-show (HUL, 2017).

When contrasted with efforts like the MAP, the HUL stands out on the basis of its grassroots-based organizational capacity, its connections with other local groups and broader-scale movements (i.e., the Right to the City Foundation), and its outward posture toward public institutions. These characteristics all contribute to HULs capacity to make the kinds of impacts noted above. HUL also organizes a series of seminars (i.e., Do Din, HUL, 2017) designed to connect non-profit, civil society, academic, and policy actors situated in various places and governing contexts to collaborate on shared issues, and in a venue convened by academics, ostensibly beyond established, state-driven governing arenas. It is precisely in such venues where discussion could be based on terms and conditions substantively different from, for instance, the rationalities of neoliberal development and austerity, where critical academic knowledge is thrust to the center of discussion, existing power relations explicitly identified and critically examined, and dissensus is privileged over a contrived consensus.

Of course, not all stakeholders, particularly business elites and powerful civic actors, are likely to adopt substantially different worldviews, politics, and ethical considerations. However,

practitioners (i.e., planners, policy makers) on the ground are not unthinking vessels who unwittingly implement broader elite-capitalist agendas, but are rather a diverse array of mostly well-intentioned actors who often find themselves trapped within broader mechanisms of constraint (Harvey, 1996; Warren, 2004; Anderson et al., 2016a). In this context, HUL represents an alternative 'space' for political agenda construction by forging both local and trans-local connections with actors enmeshed within a variety of governing contexts in a way that efforts like the MAP do not.

Certainly, we do not suggest that HUL rests above the possibility of post-political capture present in the MAP or the kinds of exclusions documented elsewhere in the post-politics literature. Moreover, following Elwood and Ghose (2001), all PGIS initiatives are developed in relation to the contingencies of local context. As such, the HUL template may work well in some contexts, but not as much in others. We also offer the HUL model not in terms of any particular mapping strategy, but the wider range of political strategies in which HUL is enmeshed. In short, HUL is doing some of the very things identified in the post-politics literature as necessary in terms of enacting a counter-hegemonic politics (i.e., up-scaling issues that utilize critical mapping via social media). It is not difficult to envision how efforts like HUL could also develop the kinds of fast-action GIS response teams advocated by Sauders (2013), or the kinds of "counter-conduct" identified by Rosol (2014).

More broadly, we argue that PGIS initiatives conceptually oriented in this way offer greater potential in challenging and changing the dominant, elite-biased narratives that mark existing governing landscapes. This necessarily entails the construction of alternative hegemonic visions in terms of how we think about cities, social systems (i.e., neoliberal

capitalism), society and reality, and about what constitutes equitable socio-spatial political and economic relations – in short, changing what Žižek (1999: 237) terms “the parameters of what is considered possible in the existing constellation.” The HUL merely represents one potential model that we draw inspiration, as there are surely other ideas, principles, and models that could be added to help guide scholars and practitioners. But something must be offered to generate the conversation and this is what we hope to achieve with this essay. A more politically developed PGIS can only further contribute to existing progressive social movements in meaningful ways. Further connecting these heretofore disparate bodies of literature, we suggest, holds promise in liberating and advancing the largely unrealized political potential of PGIS practice, to sufficiently take aim at rewriting the very “social, political, and economic inequalities” that Elwood (2010b: 52) notes has been thus far beyond the terrain of its scope and impact.

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¹ We wish to stress that this article represents a genuinely equal effort delivered by the authors. As such, the order of authorship should not reflect who contributed the greater amount of work.

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³ Similar to Corbett, Cochrane, and Gill (2016), we use PGIS as an umbrella term to capture the many variations on the primary theme of using GIS for political engagement.

⁴ The critical cartography literature also points to how maps are often used to produce precisely the kinds of consensus that is critiqued here.

⁵ These are, perhaps, the most prominent figures, although Alain Badiou, Mark Purcell, and Erick Swyngedouw, among others, have also entered the discussion as primary contributors and/or secondary interpreters.

⁶ It is also worth examining more closely the extent to which insights from critical cartography and critical GIS do or do not carry over to PGIS, and that (re)connections between these somewhat inter-related fields are also important. Such an effort, however, is beyond the scope of this essay.

⁷ For example, a city official told one of us that the public works department was operating on a 'triage' basis because some neighborhoods were 'too far gone to save' (personal communication, March 2014)